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China, Peoples Republic of

FAIRS Subject Report

Grain and Oilseed Standards

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Report Highlights:
On July 3, 2008, China notified the WTO of the National Standard GB 1353—2007 "National Standard for Corn" as TBT/N/CHN/403 and National Standard GB-1532-2006 "National Standard for Soybeans" as TBT/N/CHN/402. These standards specify the relevant terms and definitions, classifications, quality requirements, test methods, and requirements for labeling, packaging, transportation and storage of corn and soybeans. National Standard is GB/T 5492 Inspection of Grain and Oilseeds - Methods for Identification of Color, Odor and Taste is referenced in that standard and published here as a reference in reviewing TBT/N/CHN/403. This report is an UNOFFICIAL translation of GB/T 5492.

Includes PSD Changes: No
Includes Trade Matrix: No
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Executive Summary: On July 3, 2008, China notified the WTO of the National Standard GB 1353—2007 "National Standard for Corn" (Replacing GB 1353-1999) as TBT/N/CHN/403. This standard specifies the relevant terms and definitions, classifications, quality requirements, test methods, and requirements for labeling, packaging, transportation and storage of corn. This standard also applies to testing, evaluation and identification of the quality of corn. The date for submission of final comments to the WTO is September 3, 2008. The proposed date of adoption is 90 days after circulation by the WTO Secretariat (October 3, 2008) and the proposed date of entry into force is 6 months after adoption (January 3, 2009). This is notified as GAIN Report CH8069.

On July 3, 2008, China notified the WTO of the National Standard GB-1532-2006 "National Standard for Soybeans" (Replacing GB 1352-1986) as TBT/N/CHN/402. This standard specifies the relevant terms and definitions, classifications, quality requirements, test methods, and requirements for labeling, packaging, transportation and storage of soybeans. This standard also applies to testing, evaluation and identification of the quality of commercial soybeans. The date for submission of final comments to the WTO is September 3, 2008. The proposed date of adoption is 90 days after circulation by the WTO Secretariat (October 3, 2008) and the proposed date of entry into force is 6 months after adoption (January 3, 2009). This is notified as GAIN Report CH8066.

One of the measures that is referenced in the proposed National Standard is GB/T 5492 Inspection of Grain and Oilseeds - Methods for Identification of Color, Odor and Taste. This standard has not been notified to the WTO. This National Standard, along with other standards published in GAIN Reports CH8097-CH8105, is being published so that GB 1353—2007 "National Standard for Corn" TBT/N/CHN/403 and GB-1532-2006 "National Standard for Soybeans" TBT/N/CHN/402 can be reviewed with this additional pertinent information.

Thanks go to the United States Soybean Export Council – International Marketing and the U.S. Grains Council for their support in translating this measure.

BEGIN TRANSLATION

National Standard of the People's Republic of China

GB 5492-85

Inspection of Grain and Oilseeds - Methods for Identification of Color, Odor and Taste

This standard is applicable to identification of the color, odor and taste of the commodity grain.

1 Color Identification

In the process of identification, put the sample under scattered light, and identify with the naked eye whether the color and luster of all samples are normal or not.

2 Odor Identification

2.1 Take a few samples, breathe in from the samples, and immediately identify whether the odor is normal or not by smelling.

2.2 Put the samples into an airtight vessel, preserve its heat in a cup with warm water at 60~70? for several minutes, take it out, and open the lid to smell whether the odor is normal or not.

3 Taste Identification

The finished product of grain should be cooked into cooked food, then identify whether the taste is normal or not.

4 Result Expression

Normal grain and oilseeds have intrinsic color, luster, odor and taste. The identification results are expressed with 'Normal' or 'Abnormal'. Those abnormal result should be explained.

Annex A

Test for Distinguishing Fresh and Stale Grain

(Informative Annex)

A.1 Guaiacol Reaction Method

A.1.1 Take 50~100 kernels of the grain sample into a test tube, shake it after adding 2ml 1% guaiacol solution (the stock solution is diluted to 100 times by water), add 1~3 drops of 3% hydrogen peroxide solution, preserve it aside for a moment after shaking, then the grains and the solution start to show their color. Carry out a comparison test at the same time. The deeper the color, the stronger activity of the enzyme and the fresher grains will be.

A.1.2 Take about 5g rice into a test tube, add 10ml 1% guaiacol solution, shake it about 20 times, displace the guaiacol solution into another test tube, add 3 drops of 1% hydrogen peroxide solution after static preservation, observe the coloration degree under static condition. If it is fresh rice, the white cloudy guaiacol solution shows russet from the top after 1~3min; if it is stale rice, it is never stained. If it is a mixture of fresh rice and stale rice, the color reaction is faster and it shows deep russet if the proportion of the fresh rice is larger; or the color reaction is slower and it shows light russet if the proportion of the stale rice is larger.

A.2 Combination of Guaiacol and P-phenylenediamine

Take 50-100 kernels of the sample into the test tube, add 4ml 1% guaiacol solution, statically preserve for about 2min after shaking, add 3~4 drops of 3% hydrogen peroxide solution, add 3ml 2% p-phenylenediamine solution after shaking, shake, pour out the solution in the test tube after static preservation, wash it with water and observe it. If it is fresh rice, the activity of the enzyme is strong, the color will be deeper; if it is stale rice, the activity of the enzyme is weak and it will be stained slowly and lightly.

A.3 Acidity Indicator Method

A.3.1 Prepare stock solution: dissolve 0.1g methyl red, and 0.3g bromothymol blue into 150ml ethanol, add water to dilute it into 200ml, preserve it as the stock solution.

A.3.2 Distinguish the fresh sample from stale sample: mix the stock solution and water in a proportion of 1:50 into a working solution. Take 5g sample and add it into 10ml working solution, observe the coloration status after shaking. The more fresher of the rice, more greener of the kernel, and the oxidized part changes from yellow into orange.

A.3.3 Determine the mixture proportion of the fresh rice and the stale rice: mix the stock solution with the water in a proportion of 1:4, titrate by alkali solution, adjust it from red to yellow (unaccepted if the remnant yellow changes into green), prepare it as the working solution; take 20~100 kernels of the sample, add into 10ml working solution, shake it, when the rice is stained, wash it with water immediately, and distinguish the fresh rice from the stale rice according to the color stained.

It shows green ? yellow ? orange along with the oxidation.

Note: ? It is not an absolute value for the mixture proportion and stock solution dilution proportion of the indicators in A.3.2 and A.3.3, which can be reasonably altered according to the oxidation degree of the sample.

? The first method can be applied to the raw grains, and multiple methods are preferable for the rice.

? The file is excerpted from the Standard Measuring Method that is edited by the Food Agency of MAFF of Japan in May, 1974.

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Additional Explanation:

This standard was proposed by the Ministry of Commerce of the People's Republic of China.
This standard was drafted by the Grain Storage and Transport Bureau, the Ministry of Commerce.
Major draftsmen of this standard are Gao Xiuwu, Yang Haoran, Wu Yanxia, and Lv Guifen